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AUTHOR Garland, Daniel J.; Barry, John R.
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ABSTRACT

The present study utilized a multidimensional model of leadership (Chelladurai & Carron, 1978) to examine the influence of personality traits and perceived leader behaviors on performance in collegiate football. Collegiate football players (n=272) from three southeastern United States universities were administered Cattell's Sixteen Personality Factor questionnaire and the Leadership Scale for Sports and subsequently grouped into three athletic performance categories (Regulars, Substitutes, and Survivors). Regression analyses indicated that personality traits and leader behaviors taken together contribute significantly to the prediction of performance. Players who were more group-dependent, tough-minded, extroverted, emotionally stable and who perceived their coach as offering more training and instruction, having a democratic decision-style, being more socially supportive, and offering more positive feedback were likely to perform more effectively. Players who perceived their coach as having an autocratic decision-style were not likely to perform as effectively. (Author)

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The Effects of Personality and Perceived Leader Behaviors on Performance in Collegiate Football

Daniel J. Garland and John R. Barry

University of Georgia

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Abstract

The present study utilized a multidimensional model of leadership (Chelladurai & Carron, 1978) to examine the influence of personality traits and perceived leader behaviors on performance in collegiate football. Collegiate football players (n = 272) from three southeastern United States universities were administered Cattell's Sixteen Personality Factor questionnaire and the Leadership Scale for Sports and subsequently grouped into three athletic performance categories (Regulars, Substitutes, and Survivors). Regression analyses indicated that personality traits and leader behaviors taken together contribute significantly to the prediction of performance. Players who were more group-dependent, tough-minded, extroverted, emotionally stable and who perceived their coach as offering more training and instruction, having a democratic decision-style, being more socially supportive, and offering more positive feedback were likely to perform more effectively. Players who perceived their coach as having an autocratic decision-style were not likely to perform as effectively.

The Effects of Personality and Perceived Leader Behaviors on Performance in Collegiate Football

The role personality may play in athletic performance has been of interest to sport psychologists for decades. Research has been conducted to obtain accurate and reliable information about the dynamics of personality which may facilitate or undermine athletic performance. Although sport personality research is prolific, the relationship between personality and athletic performance has not been strongly established. Several authors have argued for a personality-performance relationship, (Kane, 1970, 1980; Morgan & Costill, 1972; Morgan & Johnson, 1977, 1978; Morgan & Pollock, 1977; Williams & Parkin, 1980), while others have argued that there is no relationship between personality and athletic performance (Kroll, 1970, 1976; Martens, 1975; Rushall, 1970, 1975; Singer, Harris, Kroll, Martens, Sechrest, 1977).

Morgan (1980a) has suggested the primary explanation for the conflicting conclusions is that sport personality studies have ignored important variables such as situational factors. It seems likely that situational determinants can mediate the effectiveness of athletic performance. Such mediating variables as type of sport, level of competition, coach's personality, and coach's behaviors may play a valuable role in the performance of an athlete. Consequently, situational-behavioral theories have been developed in an attempt to integrate both situational and behavioral variables into a more multidimensional paradigm. While

several situational-behavioral theories, such as Fiedler's (1967) contingency model, House's (1971) path-goal theory, and Hersey and Blanchard's (1977) situational theory, have generated an enormous amount of research to test their efficacy, Chelladurai and Carron's (1978) situational-behavioral multidimensional leadership model is one of the few paradigms developed for application to sport settings. This multidimensional model attempts to explain athletic performance by examining the influence of specific leader behaviors and antecedent variables such as situational characteristics, and member characteristics.

To facilitate the testing of the multidimensional leadership model, Chelladurai and Saleh (1980) developed the Leadership Scale for Sports (LSS). This reliable sport-specific instrument, consists of five dimensions of leader behaviors in sports. The dimensions include, one direct task factor (training and instruction), two decision-style factors (democratic and autocratic), and two motivational factors (social support and rewarding behavior). The development of the LSS has generated a number of sport-related studies to test the efficacy of the multidimensional leadership model (Chelladurai, 1984; Chelladurai & Arnott, 1985; Chelladurai & Carron, 1983; Weiss & Friedrichs, 1986).

Weiss and Friedrichs (1986) utilized the multidimensional model to examine the relationship of leader behaviors, situational characteristics, and leader characteristics to team performance and athlete satisfaction

in collegiate basketball. Their results indicate that neither situational nor leader characteristics were significantly related to team performance.

While studies have begun to examine the moderating variables affecting athletic performance, additional research is needed to examine further aspects of the multidimensional model within the sport environment. Specifically, group member characteristics such as personality traits may help to further explain the variance within athletic performance. Thus, the present study examined the effects of perceived leader behaviors and athlete personality factors on performance in collegiate football.

Method

Subjects

The sample consisted of 272 collegiate football players, who were attending three southeastern United States universities. The participating university football teams will remain anonymous at the request of the coaches.

Performance Criterium

After consultation with several collegiate football coaches, an athletic performance continuum was established to differentiate the players into three separate categories, each varying in the degree of athletic success. The players were identified as Regulars (N = 101), Substitutes (N = 94), and Survivors (N = 77) based on the following criteria:

1. Regulars--Those players who regularly started and/or played 50% or more of the plays during the games throughout the season.

2. Substitutes--Those players who started and/or played less than 50% of the plays during the games throughout the season.

3. Survivors--Those players who did not play during the season, except for acknowledgement purposes (i.e., playing the last few plays of a game in which the outcome is not in question).

Measures

16 Personality Factor Questionnaire

The 16PF is bi-polar in nature, having a low- and a high-score description for each trait. Form C was used for all the players, in order to utilize the built-in Motivational Distortion scale to evaluate and correct for faking good, faking bad, and random answering. The development of the 16PF and it's psychometric properties are fully elaborated by Cattell, Eber, and Tatsuoka (1982).

Leadership Scale for Sports (LSS)

The LSS, developed by Chelladurai and Saleh (1980), consists of 40 items representing five dimensions of leader behavior in sports. This five-dimensional description of coaching behavior consists of one direct task factor (training and instruction), two decision-style factors (democratic and autocratic), and two motivational factors (social support and positive feedback).

Training and instruction. Training and instruction behavior refers to behavior of the coach aimed at improving the performance of the athletes by emphasizing and facilitating hard and strenuous training, along with

instruction on skills, techniques, and tactics of the sport.

Democratic behavior. Democratic behavior of the coach allows for a greater participation by the athletes in decisions pertaining to group goals, practice methods, and game tactics and strategies.

Autocratic behavior. Autocratic behavior of the coach involves independence in decision making and stresses personal authority.

Social support. Social support behavior is characterized by a concern for individual athletes, for their welfare, and for warm interpersonal relations with members.

Rewarding behavior. Rewarding (positive feedback) behavior provides reinforcements for an athlete by recognizing and rewarding good performance.

The LSS was administered to all the players to measure their perceptions of the actual leader behavior of their specific position coach. The development of the scale and it's psychometric properties have been fully elaborated (Chelladurai & Saleh, 1980).

Procedure

Initially, personal contact was made with the football coaches of the three universities participating in the study to determine their interest and to obtain their cooperation. Prior to the first game of the regular season, the football players were assembled and informed consent forms, the 16 Personality Factor Questionnaire, and the Leadership Scale for Sports were completed. At the conclusion of the season, coaches (N=23) grouped their players into the three athletic

performance categories (Regulars, Substitutes, and Survivors) based on the previously established criteria, and provided this information to the present investigators. Coaches used seasonal records of player play participation to categorize their players. The coaches reported no problems in distinguishing between players for specific groups.

Results and Discussion

A maximum R-square multiple stepwise regression analysis (SAS Institute, 1982) was used to determine the extent to which athletic performance could be predicted by a linear combination of the regressor variables, namely Cattell's sixteen personality factors and the five leader behavior dimensions of the Leadership Scale for Sports. The results, presented in Table 1, indicate that four of the sixteen personality traits, group-dependence, tough-mindedness, extroversion, and emotional stability, along with the five perceived leader behaviors were found to be significant predictors of athletic performance in collegiate football, accounting for approximately 59 percent of the total variance. Descriptive statistics are presented in Table 2.

Insert Tables 1 and 2 about here

The cumulative change in R^2 (represented by ΔR^2 in Table 1), from the initial r^2 of autocratic behavior, increased significantly from .36 to .59, $\underline{F}(8, 262) = 20.97$, $\underline{p}<.0001$, indicating a reliable increase in the variance accounted for in athletic performance, by the progressive inclusion of the

significant variables. Examination of the beta weights show that autocratic behavior was the most important contributor to performance, accounting for approximately 36 percent of the total variance, while group-dependence and tough-mindedness were the most important personality factors. This indicates that the more successful players were associated with higher levels of group-dependence and tough-mindedness, while perceiving their coach as possessing a less autocratic decision-style. The remaining twelve personality factors were not significant.

A subsequent regression analysis indicated that the four significant personality traits can account for approximately 29 percent of the total variance in performance, $F(4, 267) = 26.88$, $p<.0001$. This result is consistent with Morgan's (1980b) position that there is a relationship between athletic performance and personality. Morgan notes that Kane's (1970) data indicate that personality traits can account for 20 percent of the variance in athletic performance for men and women.

In addition, the five leader behaviors can account for approximately 51 percent of the variance in athletic performance, $F(5, 266) = 54.75$, $p<.0001$, suggesting leader behaviors to be the most important set of predictor variables. To determine if the four personality traits can account for additional variation in performance, beyond the variance accounted for by the leader behaviors, a test for a significant increase in R^2 from the reduced (leader behaviors) to the full (leader behaviors and personality

factors) model was used. The results were significant, $F(4, 262) = 16.00$, $p<.0001$, indicating that the four significant personality factors account for a significant increase in the total variance beyond the variance accounted for by the leader behaviors.

These results are consistent with Chelladurai and Carron's (1978) multidimensional theory of leadership, which contends that athletic performance is influenced by leader behaviors and antecedent variables, such as group member characteristics (personality traits). High levels of the personality traits group-dependence, tough-mindedness, extroversion, and emotional stability were found to be predictive of athletic performance. Several studies (Kane, 1970, 1980; Morgan & Costill, 1972; Morgan & Johnson, 1977, 1978; Morgan & Pollock, 1977; Ogilvie, 1968; Williams & Parkin, 1980) have supported the significant contribution of these four personality traits to high levels of athletic performance.

In addition, each of the five leader behaviors were found to be associated with athletic performance. The primary contributor to performance was autocratic behavior. Players who perceived their coach as having a more autocratic decision-style, tended to be associated with lower levels of performance, supporting the findings of Robinson and Carron (1982), which revealed that less successful players perceived their coach as being more autocratically oriented and less democratically oriented. Conversely, the present study found players who perceived their coach as offering more training

and instruction, being more democratically oriented, being more socially supportive, and offering more positive feedback were more likely to be associated with higher levels of performance.

The significant contribution of the leader behaviors to athletic performance is consistent with the viewpoint of McPherson (1978). He suggests that involvement and subsequent success in athletics is often determined by the individual's interactions with the environment in which the action occurs. This indicates that much of the variation in success in athletics is accounted for by situational factors. McPherson suggests that a major class of situational factors contributing to entrance into, maintenance of, and subsequent success in athletics is coaching and leadership considerations.

The present study, in addition to providing support for the multidimensional theory of leadership, is also consistent with personality trait theory. Trait theory conceptualizes personality as a collection of traits or factors, which exert widely generalized causal effects on behavior. However, a strict trait theory approach should be used with caution, due to the additional influence of various mediating variables. A greater proportion of the actual behavior can be explained when personality traits are used along with variables such as coach and leader behaviors. Further research is needed with the multidimensional theory of leadership in additional sport populations to identify other situational and behavioral factors associated with athletic performance.

References

Cattell, R. B. (1965). The scientific analysis of personality. Baltimore: Penguin Books.

Cattell, R. B., Eber, H. W., & Tatsuoka, M. M. (1982). Handbook for the sixteen personality factor questionnaire (16 PF). Champaign, IL: Institute of Personality and Ability Testing.

Chelladurai, P. (1984). Discrepancy between preferences and perceptions of leadership behavior and satisfaction of athletes in varying sports. Journal of Sport Psychology, 6, 27-41.

Chelladurai, P., & Arnott, M. (1985). Decision styles in coaching: Preferences of basketball players. Research Quarterly of Exercise and Sport, 56, 15-24.

Chelladurai, P., & Carron, A. V. (1978). Leadership. Ottawa: CAHPER Sociology of Sport Monographs.

Chelladurai, P. & Carron, A. V. (1983). Athletic maturity and preferred leadership. Journal of Sport Psychology, 5, 371-380.

Chelladurai, P., & Saleh, S. D. (1980). Dimensions of leader behavior in sports: Development of a leadership scale. Journal of Sport Psychology, 2, 34-45.

Fiedler, F. E. (1967). A theory of leadership effectiveness. New York: McGraw-Hill.

Hersey, P., & Blanchard, K. H. (1977). Management of organizational behavior (3rd ed.). Englewood Cliffs, NJ: Prentice-Hall.

House, R. J. (1971). A path-goal theory of leader

effectiveness. Administrative Science Quarterly, 16, 321-338.

Kane, J. E. (1970). Personality and physical abilities. In G. S. Kenyon (Ed.), Contemporary psychology of sport: Second International Congress of Sports Psychology. Chicago: Athletic Institute.

Kane, J. E. (1980). Personality research: The current controversy and implications for sport studies. In W. F. Straub (Ed.), Sport psychology: An analysis of athletic behavior (2nd ed.). Ithaca, NY: Mouvement.

Kroll, W. (1970). Current strategies and problems in personality assessment of athletes. In L. E. Smith (Ed.), Psychology of motor learning. Chicago: Athletic Institute.

Kroll, W. (1976). Psychological scaling of the AIAW Code-of-Ethics for Players. Research Quarterly, 47, 126-133.

Martens, R. (1975). Social psychology and physical activity. New York: Harper & Row.

McPherson, B. D. (1978). The child in competitive sport: Influence of the social milieu. In Children in sport: A contemporary anthology. Champaign, IL: Human Kinetics.

Morgan, W. P. (1972). Sport psychology. In R. N. Singer (Ed.), The psychomotor domain: Movement behavior. Philadelphia: Lea & Febiger.

Morgan, W. P. (1980a). Sport personology: The credulous-skeptical arguement in perspective. In W. F. Straub (Ed.), Sport psychology: An analysis of athlete behavior

(2nd ed.). Ithaca, NY: Mouvement.

Morgan, W. P. (1980b). The trait psychology controversy. Research Quarterly for Exercise and Sport, 51, 50-76.

Morgan, W. P., & Costill, D. L. (1972). Psychological characteristics of the marathon runner. Journal of Sports Medicine and Physical Fitness, 12, 42-46.

Morgan, W. P., & Johnson, R. W. (1977). Psychological characterizations of the elite wrestler: A mental health model. Medicine and Science in Sports, 9(1), 55-56.

Morgan, W. P., & Johnson, R. W. (1978). Psychological characteristics of successful and unsuccessful oarsmen. International Journal of Sport Psychology, 11, 38-49.

Morgan, W. P., & Pollock, M. L. (1977). Psychological characterization of the elite distance runner. Annals of the New York Academy of Science, 301, 382-403.

Ogilvie, B. C. (1968). Psychological consistencies within the personality of high-level competitors. Journal of the American Medical Association, 205, 780-786.

Rushall, B. S. (1970). An evaluation of the relationship between personality and physical performance categories. In G. S. Kenyon (Ed.), Contemporary psychology of sport: Second International Congress of Sport Psychology. Chicago: Athletic Institute.

Rushall, B. S. (1975). Alternative dependent variables for the study of behavior in sport. In D. M. Landers (Ed.), Psychology of sport and motor behavior II. College Park: Pennsylvania State University.

SAS Institute Inc. SAS User's Guide: Statistics, 1982 Edition [Computer Program Manual]. Cary, NC: SAS Institute Inc., 1982. 584pp.

Singer, R. N., Harris, D., Kroll, W., Martens, R., & Sechrest, L. (1977). Psychological testing of athletes. Journal of Physical Education and Recreation, 48, 30-32.

Weiss, M. R., & Friedrichs, W. D. (1986). The influence of leader behaviors, coach attributes, and institutional variables on performance and satisfaction of collegiate basketball teams. Journal of Sport Psychology, 8, 332-346.

Williams, L. R. T., & Parkin, W. A. (1980). Personality profiles of three hockey groups. International Journal of Sport Psychology, 11, 113-120.

Authors Notes

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Request for reprints should be sent to Daniel J. Garland, Department of Psychology, University of Georgia, Athens, Georgia 30602.

Table 1

Multiple Stepwise Regression of Personality Factors and Perceived Leader Behavior Variables on Performance Levels

				Final Step	
Variables	R	R^2	ΔR^2	B	F
Autocratic Behavior[b]	.60	.36		-.389	83.66***
Group-dependence[a]	.66	.43	.07	-.169	15.44***
Tough-mindedness[a]	.70	.49	.06	-.181	18.88***
Training & Instruction[b]	.73	.53	.04	.178	17.12***
Rewarding Behavior[b]	.74	.55	.02	.154	12.41***
Extroversion[a]	.76	.57	.02	.117	8.21**
Democratic Behavior[b]	.76	.58	.01	.110	7.14**
Social Support[b]	.76	.58	.00	.092	4.54*
Emotional Stability[a]	.77	.59	.01	.079	4.03*

Note. The R and R^2 entries for autocratic behavior represent simple r and r^2. The negative beta weight for autocratic behavior indicates association with lower levels of performance, while the negative beta weights for group-dependence and tough-mindedness reflect the low end of the 16PF bi-polar scale.

[a] Personality factors. [b] Leader behaviors.

*p<.05. **p<.01. ***p<.0001.

Table 2

Descriptive Statistics for the Significant Personality Traits and Leader Behavior Dimensions

	Regular (N=101)		Substitute (N=94)		Survivor (N=77)	
Variables	Mean	SD	Mean	SD	Mean	SD
Extroversion	6.60	1.23	5.70	1.43	5.17	1.18
Emotional Stability	5.58	1.45	5.33	1.89	5.13	1.13
Tough-mindedness	3.84	1.30	4.71	1.90	5.44	1.58
Group-dependence	4.23	1.69	5.53	1.58	6.05	1.92
Training & Instruct	4.15	.657	3.95	.786	3.39	.832
Democratic Behavior	3.45	.943	3.40	.543	2.78	.743
Autocratic Behavior	2.05	.678	2.46	.521	3.14	.859
Social Support	3.66	.543	3.46	.478	3.14	.487
Rewarding Behavior	4.18	.582	4.21	.694	3.27	.591

Note. The sten scores for the 16PF can vary from a low of 1 to a high of 10, and the LSS scores can vary from a low of 1 to a high of 5.